2-Chloro-3-trichloromethylbicyclo[2.2.1]heptane

Other names: Norbornane, 3-chloro-2-trichloromethyl, exo-Cl
Inchi: InChI=1S/C8H10Cl4/c9-7-5-2-1-4(3-5)6(7)8(10,11)12/h4-7H,1-3H2
InchiKey: UBXTVVBTCPESJI-UHFFFAOYSA-N
Formula: C8H10Cl4
SMILES: ClC1C2CCC(C2)C1C(Cl)(Cl)Cl
Mol. weight [g/mol]: 247.98

Physical Properties

Property code	Value	Unit	Source
gf	65.58	kJ/mol	Joback Method
hf	-181.40	kJ/mol	Joback Method
hfus	22.16	kJ/mol	Joback Method
hvap	49.03	kJ/mol	Joback Method
log10ws	-4.06		Crippen Method
logp	4.010		Crippen Method
mcvol	150.820	ml/mol	McGowan Method
pc	2781.78	kPa	Joback Method
rinpol	1464.00		NIST Webbook
rinpol	1464.00		NIST Webbook
tb	537.34	K	Joback Method
tc	777.87	K	Joback Method
tf	325.90	K	Joback Method
vc	0.573	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	323.62	J/mol×K	537.34	Joback Method
cpg	338.97	J/mol×K	577.43	Joback Method
cpg	352.96	J/mol×K	617.52	Joback Method
cpg	365.72	J/mol×K	657.61	Joback Method
cpg	377.36	J/mol×K	697.70	Joback Method
cpg	388.00	J/mol×K	737.78	Joback Method
cpg	397.76	J/mol×K	777.87	Joback Method

dvisc	0.0025958	Pa×s	325.90	Joback Method
dvisc	0.0021203	Pa×s	361.14	Joback Method
dvisc	0.0017953	Pa×s	396.38	Joback Method
dvisc	0.0015620	Pa×s	431.62	Joback Method
dvisc	0.0013878	Pa×s	466.86	Joback Method
dvisc	0.0012538	Pa×s	502.10	Joback Method
dvisc	0.0011478	Pa×s	537.34	Joback Method

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U216751&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume